# CHAPTER 5: ALTERNATIVE MARKET PROVIDERS

Through most of the 20th Century, the prevailing view of telephony was that wireline was the only means to provide voice telephone services. This monopoly provision of telephone service required that state and federal governments maintain continuing oversight of and intervention in the industry. As technological changes and market forces reinforced by regulation-based price distortions changed the cost and benefits of maintaining monopoly service in voice telephony, state and federal governments responded through legal and regulatory changes. The breakup of AT&T in the 1980s unbundled long-distance voice from local voice services. The federal Telecommunications Act of 1996 created the ground rules for entry of CLECs into local voice telephony, whose entry in turn culminated in SWBT's entry into the long distance market.

Technology is again reshaping the competitive landscape of telecommunications. New technologies such as cable, wireless, satellite, and voice over internet protocol (VoIP) likely will create new avenues and providers for customers to receive traditional local and long distance voice services, profoundly changing the market structure from the customers' point of view. Telecommunication providers will sell local and long-distance voice services as part of a bundled product, where pricing, terms and conditions of voice service will no longer be determined independently of other telecommunications services.

New market segments and technologies, such as wireless telephony, the Internet, and local and long-distance data services are diminishing the importance of long distance and local voice on wireline. J.P. Morgan Securities, in a recent analysis of the telecommunications industry, has estimated that both local and long distance wireline voice, which accounted for about 70 percent of 1999 telecommunication revenues in the United States, will account for only 39 percent of revenues in 2005.[91]

The rise of Internet Protocol as the backbone for wireline telecommunications has the potential to replace the dedicated switched circuit that has been the basis of telephony for the past century. J.P Morgan also projected that information transmitted through the Internet Protocol (IP) alone probably will comprise more than 90 percent of the wireline bit stream in 2005, compared with 13 percent in 1998.[92]

The purpose of this chapter is to discuss alternatives to wireline telephony, not with regard to their technological feasibility, but with respect to their potential to

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[91] J.P. Morgan Securities, Equity Research, *Telecom Services, A Fresh Look at the Industry*, at 4, Table 1 (Sept. 8, 2000).

[92] *Id* at 6.

seriously challenge wireline ILECs for market share. While CLECs and ILECs have deployed most of the alternatives discussed below, their availability at a price that would be competitive to the majority of Texans is limited to one exception: mobile telephony.

This report divides these technologies into three categories: current competitors, coming competitors, and potential future competitors. This report draws from the Commission's recent *Advanced Services Report* to discuss these technologies.[93]

## Current Competitor

Currently, wireline voice has one competitor that provides local and long-distance voice at a price and quality that is becoming comparable to that of wireline service: mobile telephony.

### *MOBILE TELEPHONY*

In the United States in the twelve months ending December 1999, mobile telephony subscribership increased 24 percent from 69.2 million to 86 million. Eighty-eight percent of the total U.S. population has three or more different operators offering mobile telephone service in the county where they reside. Moreover, 69 percent of the population live in areas with five or more mobile telephone operators offering service.[94]

According to the FCC, nearly one in every three Texans was a mobile telephone subscriber at year-end 1999. In particular, Texas had 0.29 subscribers *per capita*, the same rate as the United States as a whole, as shown in Table 26. Texas also had 0.44 subscribers per end-user wireline, which is comparable to the United States, with 0.42 subscribers per end-user wireline.[95]

The price of mobile telephone service reportedly decreased by 11.3 percent between the end of January 1999 and the end of January 2000. Some reports estimate that the prices fell as much as 20 percent between 1998 and 1999.[96] Further, one analyst claimed that roaming rates per minute have declined. The local average roaming rate per minute fell from $0.75 in the fourth quarter of 1997 to $0.37 in the first quarter of 1999.[97]

At present, concerns about the quality of service of wireless telephony have kept consumers from using wireless telephony as a complete substitute for local wireline service. Fast-growing demand has required companies to invest in large-scale, rapid expansion of their facilities in a short period of time, and the multiple wireless systems in the United States increase the complexity of providing telecommunication service relative to wireless services in Europe.

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[93] Public Utility Commission of Texas, *Report to the 77th Legislature on Advanced Services in Rural and High Cost Areas* (January 2001).

[94] *FCC Releases Fifth Annual Report on State of Wireless Industry,* CC Docket No. 00-289, Report (Rel. August 2000).

[95] Federal Communications Commission, *Local Telephone Competition at the New Millennium,* Tables 4 and 5 (August 2000).

[96] *Id.*

[97] *Id* at 20.

## Table 26 – Mobile Telephone Subscribers Reported: Year-End 1999 ** [98]

| State | Number of Carriers | Subscribers | Percent of Nation | Population *** | Subscribers per Capita |
|---|---|---|---|---|---|
| Alabama | 10 | 1,080,410 | 1.4 % | 4,369,862 | 0.25 |
| Alaska | 5 | 165,221 | 0.2 | 619,500 | 0.27 |
| Arizona | 9 | 1,125,321 | 1.4 | 4,778,332 | 0.24 |
| Arkansas | 5 | 719,919 | 0.9 | 2,551,373 | 0.28 |
| California | 11 | 8,544,941 | 10.7 | 33,145,121 | 0.26 |
| Colorado | 8 | 1,552,718 | 1.9 | 4,056,133 | 0.38 |
| Connecticut | 6 | 1,077,089 | 1.4 | 3,282,031 | 0.33 |
| Delaware | 5 | 270,848 | 0.3 | 753,538 | 0.36 |
| District of Columbia | 5 | 910,116 | 1.1 | 519,000 | 1.75 |
| Florida | 14 | 5,158,079 | 6.5 | 15,111,244 | 0.34 |
| Georgia | 13 | 2,538,983 | 3.2 | 7,788,240 | 0.33 |
| Hawaii | 8 | 288,425 | 0.4 | 1,185,497 | 0.24 |
| Idaho | 4 | 271,436 | 0.3 | 1,251,700 | 0.22 |
| Illinois | 10 | 3,922,482 | 4.9 | 12,128,370 | 0.32 |
| Indiana | 10 | 1,318,975 | 1.7 | 5,942,901 | 0.22 |
| Iowa | 9 | 774,773 | 1.0 | 2,869,413 | 0.27 |
| Kansas | 11 | 669,472 | 0.8 | 2,654,052 | 0.25 |
| Kentucky | 12 | 911,700 | 1.1 | 3,960,825 | 0.23 |
| Louisiana | 9 | 1,227,106 | 1.5 | 4,372,035 | 0.28 |
| Maine | 4 | 187,003 | 0.2 | 1,253,040 | 0.15 |
| Maryland | 7 | 1,473,494 | 1.8 | 5,171,634 | 0.28 |
| Massachusetts | 6 | 1,892,014 | 2.4 | 6,175,169 | 0.31 |
| Michigan | 13 | 3,512,813 | 4.4 | 9,863,775 | 0.36 |
| Minnesota | 13 | 1,550,411 | 1.9 | 4,775,508 | 0.32 |
| Mississippi | 6 | 673,355 | 0.8 | 2,768,619 | 0.24 |
| Missouri | 10 | 1,855,452 | 2.3 | 5,468,338 | 0.34 |
| Montana | * | * | * | 882,779 | * |
| Nebraska | 4 | 576,296 | 0.7 | 1,666,028 | 0.35 |
| Nevada | 7 | 750,335 | 0.9 | 1,809,253 | 0.41 |
| New Hampshire | 6 | 280,508 | 0.4 | 1,201,134 | 0.23 |
| New Jersey | 5 | 2,289,181 | 2.9 | 8,143,412 | 0.28 |
| New Mexico | 6 | 363,827 | 0.5 | 1,739,844 | 0.21 |
| New York | 7 | 4,833,816 | 6.1 | 18,196,601 | 0.27 |
| North Carolina | 11 | 2,536,068 | 3.2 | 7,650,789 | 0.33 |
| North Dakota | * | * | * | 633,666 | * |
| Ohio | 12 | 3,237,786 | 4.1 | 11,256,654 | 0.29 |
| Oklahoma | 9 | 826,637 | 1.0 | 3,358,044 | 0.25 |
| Oregon | 7 | 914,848 | 1.1 | 3,316,154 | 0.28 |
| Pennsylvania | 12 | 2,767,474 | 3.5 | 11,994,016 | 0.23 |
| Puerto Rico | * | * | * | 3,889,507 | * |
| Rhode Island | 6 | 279,304 | 0.4 | 990,819 | 0.28 |
| South Carolina | 7 | 1,137,232 | 1.4 | 3,885,736 | 0.29 |
| South Dakota | * | * | * | 733,133 | * |
| Tennessee | 9 | 1,529,054 | 1.9 | 5,483,535 | 0.28 |
| Texas | 20 | 5,792,453 | 7.3 | 20,044,141 | 0.29 |
| U.S. Virgin Islands | * | * | * | 120,917 | * |
| Utah | 8 | 643,824 | 0.8 | 2,129,836 | 0.30 |
| Vermont | * | * | * | 593,740 | * |
| Virginia | 12 | 1,860,262 | 2.3 | 6,872,912 | 0.27 |
| Washington | 8 | 1,873,475 | 2.4 | 5,756,361 | 0.33 |
| West Virginia | 7 | 241,265 | 0.3 | 1,806,928 | 0.13 |
| Wisconsin | 9 | 1,525,818 | 1.9 | 5,250,446 | 0.29 |
| Wyoming | 4 | 127,634 | 0.2 | 479,602 | 0.27 |
| **Nationwide** | **76** | **79,696,083** | **100.0** | **276,701,237** | **0.29** |

* Data withheld to maintain firm confidentiality.
** Carriers with under 10,000 subscribers in a state were not required to report.
*** Population as of July 1999.

[98] *Local Telephone Competition at the New Millennium*, Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division (August 2000).

## Coming Competitors

Three alternatives for voice telephony - cable television (broadband), voice over the Internet, and fixed wireless - are currently available in limited areas. While they do not at present pose a strong competitive challenge to wireline telephony based on dedicated switched circuits, they have the potential in the near future to be viable alternatives for telephone customers.

### *CABLE TELEVISION*

Cable TV has been a part of American homes for decades. A number of CLECs, most prominently AT&T, have sought to commercialize the technology that could provide voice telephony over the same connection that provides cable TV. The technology involved uses the cable modem to split voice telephony from the cable signal, so that the customer would use a telephone rather than the television set to make telephone calls.[99]

Voice telephony over cable is part of a larger plan to provide broadband access that will bundle all telecommunication services into one package (voice, TV, and Internet). The customer would receive one monthly bill, also known as "one-stop shopping." Additional services that cable providers would like to sell to customers in the future include video conferencing and video on demand.

Cable is available in many areas of the United States. Cable infrastructure reaches 70% of American households, some 67 million subscribers. The physical presence of cable in an area alone does not ensure broadband or basic Internet cable modem access. Only 40% of homes with cable have been upgraded to allow broadband access.[100] By July of 2000, 2.27 million residential and small business users were accessing the Internet via cable modems.[101] Projections show that over 3.6 million cable modems will be in use by the end of 2000.[102] This is over a 100% rise this year, and projections indicate a steady though slowing increase over the next few years.

Competition in providing cable services will occur in cities and urban areas where high population density will allow many providers to survive for the next few years, until the next generation of services and technology redefines advanced services. The areas that have neither cable nor telephone access are low density rural areas. Most small cities and many rural communities have cable facilities in Texas. Yet these systems still

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[99] This technology is distinct from Voice over Internet Protocol discussed below.

[100] Cable Modem Market Stats & Projections. Cable Datacom News, March 3, 2000. http://www.cabledatacomenws.com/cmic/cmic16.html. *See also* Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, Sixth Annual Report. CC Docket No. 99-230 (Jan. 14, 2000).

[101] "NCTA Reports Fast Growth in Cable Modem, Telephony Rollouts." *Telecommunications Report Daily* (July 26, 2000). http://www.tr.com.

[102] "NCTA Reports Fast Growth in Cable Modem, Telephony Rollouts." *Telecommunications Report Daily* (July 26, 2000). http://www.tr.com.

service only areas where population density is large enough to support building the initial infrastructure.

## *VOICE OVER INTERNET (VOIP)*

Internet Protocol (IP) has revolutionized data communications worldwide. As the speed and reliability of the Internet improve, it is relatively easy to communicate using VOIP. Voice transmission has been digitized on telecommunications carrier networks in some cases since the 1960s, and encoding voice messages over the Internet is a natural progression. There are many varieties of VOIP in use today, from rudimentary connections between two computers to sophisticated corporate interconnections. Today's VOIP status should generally be viewed as an emerging application, used by a growing number of customers with varying degrees of satisfaction.

VOIP relies more on the packet-switched Internet rather than the circuit-switched telephone network, and "lost," retransmitted, or otherwise delayed packets are more disruptive to voice calls than they are to data transmission. As a result, customer satisfaction with VOIP calls varies. However, as technology progresses, VOIP is expected to account for increased traffic. According to an analyst with U.S. Bancorp, VOIP, which accounted for less than 1% of global telecom traffic in 1999, is expected to surge to 17% by 2003 and more than 30% by 2005.[103]

In Texas in the fall of 2000, SBC Communications, Inc., proposed to provide an IP phone system for the city government of Dallas. SBC Communications claimed that voice quality should not be an issue in the city's network because phone traffic will have a priority over data.[104]

## *FIXED WIRELESS*

Fixed wireless is a system that provides high-speed services to customers by attaching to the customer's premises a radio transmitter/receiver (transceiver) that communicates with the provider's central antenna site. By doing so, the central antenna site acts as the gateway into the public switched telephone network or the Internet for the transceivers. Basically, the radio signals serve as a substitute for the copper wire or cable strand that connect customers to the network in traditional, wired technologies.

The market for fixed wireless services is expected to reach about $1 billion by the end of 2002, according to market researcher Gartner Group. Analysts expect the national fixed wireless market to grow significantly in the next three to five years, with projections estimated at 2.0 to 2.6 millions subscribers by 2003.[105]

In geographic areas with limited cable or telephone infrastructure, as in some rural areas of Texas and the rest of the United States, providers can deploy a fixed

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[103] Special Report - The Talking Internet, BusinessWeek Online, May 1, 2000, http://www.businessweek.com/2000/00_18/b3679024.htm.

[104] "SBC Proposes High-Tech Phone System for Dallas," *Dallas Morning News* (October 24,2000).

[105] Peter Jarich and Mendelson, James, *U.S. Wireless Broadband* at 243, 252, and 262; Strategies Group, *High-Speed Internet Report* at 131 (Nov. 8, 2000), http://www.strategisgroup.com/.

wireless network faster and cheaper than a xDSL or cable modem system. While infrastructure costs of wireless networks may be significantly less than those of wireline networks, wireless networks incur substantial costs acquiring spectrum.

In the year 2000 fixed wireless saw an improved competitive position as an alternative to local fixed wireline service in Texas when the Commission designated Western Wireless Corporation as an Eligible Telecommunications Carrier (ETC) and an Eligible Telecommunications Provider (ETP). The Commission action put the company one step closer to offering local service in certain rural areas of Texas.

## Potential Future Competitors

The following technologies could have the potential to offer local and long distance service in the future, but currently are not ready for commercial application. If either or both applications become commercially viable in the future, Texas customers would have additional alternative means of delivery of telephone service that could increase the level of competition in voice telephony.

### *Satellite*

Traditional satellite networks have been limited to specialized private VSAT (very small aperture terminal) networks, low bandwidth services and DTH (direct-to-home) video, but new broadband satellite systems are offering service comparable to current broadband terrestrial services. Satellite services can include any fixed multimedia service, from Internet access, local telephony, cable, video transmission, private business networks, telemedicine, teleeducation, and video conferencing.

Service to whole regions, reaching low subscriber-density areas without costly construction of terrestrial networks, gives satellite technology a promising future. Today, however, most current residential satellite offerings provide information in only one direction, downstream into the home of the user. The user needs a standard dial-up connection to send information upstream. Several satellite providers have announced plans to provide residential service with both downstream and upstream paths via satellite.

### *Electricity Transmission Lines for Telecommunications*

In the future, consumers may have access to voice telephony and the Internet using the electric grid. Two companies, Northern Telecom and Norweb Communications, have been developing the means to send vast amounts of data along power lines without distortion from electric current. In the future, every home in the country could have a second telephony wireline connection, increasing competition for telecommunication providers.

The system works by using either fiber-optic or radio links to transmit data from the Internet to local electricity sub-stations. The low-voltage part of the electricity network then becomes a local area network. A small box is installed next to the electricity meter in the home to send and receive data. The box itself is connected by ordinary cable to personal computers, which will need to be fitted with a special card and software. The new technology eventually could enable the introduction of applications such as electronic commerce, telenetworking, web broadcast media, entertainment, and Internet telephony on a mass-market scale.

## Conclusion

Mobile telephony is just the beginning of the technological transformation of the traditional voice telephony market. While Commission data suggest that CLECs have increased their market share in wireline service in Texas from a very low base, CLECs have not dislodged the predominance of ILECs in wireline telephony. Advances in telecommunications, however, offer the chance for a much more powerful form of competition in the future using methods of delivering local telephony without a large, well-financed incumbent to challenge directly for market share.

# CHAPTER 6: TELECOMMUNICATIONS IN TEXAS – PAST, PRESENT, AND FUTURE

As in previous years, this Scope of Competition Report has focused on competition in wireline voice services. In most of the past reports, local competition could only be discussed in terms of niche providers, with long distance services being the main arena of competition. With the implementation of PURA 95 and the FTA finally underway, the 1999 Scope Report could finally document a CLEC presence in the local telecommunications market. In the last Scope of Competition Report, in 1999, the evidence could support only what can perhaps be called a "toe-hold" for competition.

Evidence available for this report clearly demonstrates that competitive providers have a visible market share, with dozens of CLECs entering the more lucrative local wireline voice markets in Texas by the end of 1999. Clearly, the potential exists for creating competition in local telephony in the urban areas of Texas, if not the state as a whole.

Though trends of the last several years suggest that Texas is poised for competition in local voice telephony, events in the year 2000 have created a dramatically different backdrop for competition in local voice telephony. The recent slump in the share prices of CLECs and the reorganizations of AT&T, Sprint, and Worldcom announced in the fall of 2000 suggest that CLECs may be heading for a period of consolidation

In the next five years, however, even more sweeping changes in technology and the newly found ability of the former monopolies and CLECs to offer "one stop shopping" for a wide range of telecommunications services will overshadow the fight for market share in wireline telephony. Future reports may focus on these trends far more than on the entry of CLECs into the local wireline service territories of Verizon, SWBT, and Valor.

## Past: CLECs Flood into Texas

There exists in Texas a legal and regulatory framework that can facilitate competition to enter local telephony for customers of SWBT, Verizon, and Valor Telecommunications (the ILEC in some of Verizon's former service territories). The Commission opened the door to competition in wireline for SWBT through SWBT's Section 271 proceeding, arbitrations between SWBT and CLECs, and various rulemakings.

In 1998 and 1999, in response to these new opportunities for entry into local voice telephony, CLECs entered the Texas market as rapidly as anywhere else in the United States. A recent FCC study on competition for local voice service found that Texas ties New York for being the states with the largest number of operating CLECs. This result, on its face, supports the notion that the regulatory atmosphere in Texas is friendly for competition.

Such factors as population growth, economic growth, and population density also appear to be important considerations in the decisions of CLECs to invest in or resell voice telephony facilities in a given area of Texas. The Large Metropolitan areas and the Suburban counties, which combined comprise almost 60 percent of Texas' population, have heavy concentrations of CLECs. Data show that the Dallas and Houston metro areas have about twenty or more CLECs serving customers, while San Antonio and Austin have ten or more CLECs serving customers. Many rural areas that allow for customer choice have a choice of two, three, or more CLECs, in addition to an ILEC. Some of these competitors, however, may be aimed at customers with poor credit histories and are not vying for the average local customer's business.

Data for 1999 show while statewide CLECs are using equally all three means of entry that the FTA envisioned – construction of new lines, purchase of UNEs, and resale of telephone service - to gain entry into local telephony, the strategy varies dramatically by size of the market. CLECs built facilities in Dallas, Houston, San Antonio, and Austin to compete with ILECs, particularly for business customers. Outside the Large Metro areas, however, CLECs pursued customers by purchasing UNEs and reselling telephone services.

The market share of local access lines of CLEC in the Suburbs is about 12 percent and in Large Metropolitan areas about eight percent. The eight percent figure probably masks a wide range of market penetration rates that includes a lower penetration rate in El Paso and higher penetration rates in the Dallas and Houston, areas. The latter have large and growing residential and business populations, a high population density, and high *per capita* incomes. Seventy percent of CLECs' customers in the Large Metro areas and Suburbs are businesses.

CLECs in rural areas are showing little or no market share at this point, but that fact may reflect in part the legal and regulatory prohibitions to competition as well as poor economics of doing business in rural areas. (Counties with a population of 20,000 people or fewer have a CLEC penetration rate of less than 2 percent.) Seventy percent of their customers are residential. The entry of some telephone cooperatives into the market, particularly those in or near wealthier parts of West Texas, may indicate that some CLECs might be focusing on rural or small-town areas that allow customer choice. These CLECs may possess expertise that can make them very competitive without drawing competition from companies with deep pockets.

Having CLECs enter new markets is only the first stage of offering customer choice. CLECs must have the power to fight for market share for a sustained period before Texans harvest the fruits of competition. A key factor in developing competition in local telephony over time will be the capitalization of those CLECs.

The good news for the 1998-1999 period was that about a quarter of CLECs had market capitalizations of at least $1 billion, an order of magnitude comparable to the capitalizations of the two largest ILECs, Verizon and SWBT. Areas of Texas served by these well-capitalized CLECs were much better positioned to receive the benefits of competition in local telephony and the benefits of competition for bundled services ("one-stop shopping").

Though almost 100 CLECs responded to the Commission survey, two-thirds of the CLECs were private firms with capitalizations that were unknown or less than $100 million. These CLECs may have limited prospects that may lead to failures and mergers for many of them under the best of market conditions.

Affiliates of eight cooperatives have filed as CLECs, located near areas with high *per capita* incomes. Given that most of them have small capitalizations of $20 million or less, it will be a formidable task for them to become more than regional or niche players. Rural areas where ILECs face their primary competition from these CLECs face uncertain prospects for competition in local telephony in the long term.

# Present: ILECs Adapt, CLECs Struggle

## *ILECs*

The ILECs that must allow the greatest customer choice – SWBT and Verizon – responded to new market opportunities in 1998 and 1999. Indirect effects of deregulation and competition in local exchange service in Texas have led to a sale of rural exchanges in Texas in 1999-2000. Verizon and SWBT have contended with the heavy investment in facilities by CLECs in the metropolitan areas of Texas. With competition increasing in some parts of their service territories, these companies had incentives to rethink their holdings and strategic approach to selling telephony in Texas.

### Southwestern Bell

SWBT's competitive position in Texas has strengthened considerably in the past year. SB 560 granted SWBT pricing flexibility in vertical services, an important means to lower prices where competition with CLECs exists, and raise prices where competition is limited. For example, in 2000 SWBT significantly increased the prices for a number of nonbasic services, often services that are very popular and for which competitive alternatives are limited.

SB 560 also granted SWBT the ability to competitively bundle its products. An important additional piece in SWBT's "one-stop" shopping strategy was SWBT's receiving a favorable recommendation from the Commission on its Section 271 application, leading to FCC approval for SWBT to offer long distance service in Texas in the second half of 2000. SWBT at present has very limited competition in providing bundled services in Texas.

## Verizon

During the last two years Verizon implemented an additional strategy to cope with shareholder or market pressure, including reducing its presence in local voice markets in Texas as a CLEC. Verizon chose to sell some of its rural exchanges in various states to earn a better return on its assets in a changing telecommunications industry. Verizon's sale of a number of rural exchanges to Valor this year was part of this national trend.

A number of ILECs across the country have been seeking changes in the geographical boundaries of their operations to meet competitive challenges elsewhere. According to a recent U.S. General Accounting Office (GAO) survey of state public utility commissions, of the nearly 832,000 access lines that major ILECs have sold from January 1996 through April 2000, an estimated 68 percent were in rural areas.[106] The GAO analyzed 27 pending sales, totaling 901,000 access lines, and found that 872,000, or 97 percent, were in rural areas.

Telephone cooperatives and small private telephone companies in rural parts of Texas might do something similar to the Verizon sale and merge or purchase each other's service territories. These ILECs could then capture economies of scale and use their expertise in handling the multitude of services and would possess sufficient capitalization to invest in lines and equipment to upgrade a system in the targeted service territory. The quality and range of services, therefore, might improve in parts of rural Texas even without direct competition from CLECs, competition that is very unlikely until alternative technologies described in this report become widely available.

## *CLECs*

In the second half of the 1990s, technological breakthroughs and deregulation in the telecommunications industry created new and highly uncertain investment opportunities for investors. By the late 1990s, investors in the telecommunications industry faced investments that had a high risk / high reward profile in an industry that was once considered the realm for retirees searching for a safe, fixed return on assets. Venture capitalists, private investors, and commercial banks flooded the telecommunications industry with investment capital.

As a result, in the late 1990s, the telecommunications industry saw a proliferation of small or poorly capitalized CLECs that were vulnerable to the level of risk investors (mutual fund managers, investment banks, and commercial banks) would tolerate over time. Large long-distance carriers such as AT&T and Worldcom made large-scale investments in new technologies to compete with SWBT for customers that wanted "one-stop" shopping in telecommunications services.

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[106] United States General Accounting Office, *Telecommunications: Issues Related to Local Telephone Service*, Report to the Ranking Minority Member, Committee on Commerce, Science, and Transportation, U.S. Senate, GAO/RCED-00-237 at 5 (August 2000).

The rush into the new world of telephony created a classic bubble in telecommunications stocks.[107] According to a NASDAQ index of telecommunications companies, share prices rose 300 percent from January 1998 to early March 2000. By early 2000 such an increase provided CLECs with large capitalizations, allowing them to challenge ILECs for market share in local exchange service in Texas.

As with other stock market bubbles, this one burst, forcing the industry to endure bankruptcies of some leading CLECs and massive restructuring of others. Increased competition by ILECs in long distance, and the perception by the market that long-distance service using dedicated switched circuits was yesterday's technology, took its toll on the three dominant long distance carriers. Some analysts believe that traditional long-distance business is going away and will be replaced by any-distance calls and data transmissions that also include voice.[108] With the entry or potential entry of ILECs into long-distance telephony, prices and revenues for long-distance providers have fallen, contributing to the fall in the market capitalization of large CLECs.

The fall in the market capitalizations of large CLECs that are long distance carriers has left them in a weaker position to provide competition in local exchanges in Texas. In October and November 2000, these long-distance carriers announced their intentions to reduce their emphasis on residential services in Texas as part of massive restructuring of their business lines.

The sharp fall in share and bond prices in 2000 for CLECs may presage consolidation in the telecommunications sector. A handful of CLECs that each had capitalizations of $1 billion or more in 1999 saw their share prices drop over 95 percent during 2000. Thirty-eight of the CLECs that responded to the data collection instrument stated that they had not started serving customers in Texas at the end of 1999 and may not have sufficient revenue to weather the decline in the financial support needed to challenge an ILEC.

By the end of 2000, SWBT's financial position had strengthened relative to the CLECs. SWBT's entry into the long distance market has weakened the ability of CLECs to challenge SWBT in local voice service. Without investor confidence and funding, in the near term CLECs might pose a weaker challenge to SWBT for local wireline voice telephony or in the "one-stop" shopping market than they did in 1998 and 1999. The Commission has noted that in 2000 SWBT raised its prices on a number of vertical services and was successful in rapidly gaining market share in the long distance market, even though it was offering interLATA long distance to only customers who had SWBT as an ILEC.

In the short term, the largest potential impact of CLECs' financial troubles will be to limit their ability to enter a local market by making long-term investments in plant and equipment. Physical investment in new plant and equipment is the most powerful means to develop competition in local wireline telephony, allowing CLECs to own an increasing

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[107] For a description of how stock market bubbles have inflated and burst over the past three centuries, see Charles Kindleberger, *Manias, Panics, and Crashes*, Wiley Investment Classics, Fourth Edition, 2000.

[108] For a detailed discussion of this point, *see* J.P. Morgan Securities, Equity Research, *Telecom Services*, "A Fresh Look at the Industry" (Sept. 8, 2000).

share of the local exchange infrastructure relative to the ILECs while expanding wireline capacity in a local market overall.

## Future: Technology Spawns Competition

While short-term disruptions in the financing of CLECs may slow the advance of competition in wireline telephony, the long-term prospects for competition in telephony look promising. Disruptive new technologies, the rise of the Internet Protocol as an increasing backbone to telecommunications, and deregulation are massively restructuring the telecommunications industry. A result of all these changes is a massive increase in telecommunications services and products that will be available to customers, along with a decreasing emphasis on wireline voice telephony.

Projections that telecommunications industry analysts at J. P. Morgan Securities made in September 2000 can provide a sense of the magnitude of these changes that may occur in the next five years, as shown in Table 27. J.P. Morgan Securities projects that revenues in telecommunications services nationwide will grow from $246 billion in 1999 to $422 billion in 2005. Wireline voice (local and long distance) revenues are expected to decline slightly between 1999 through 2005. As a percentage of total revenues, however, local wireline voice will fall from 33 percent in 1999 to 21 percent in 2005, and long distance wireline voice will fall from 32 percent in 1999 to 16 percent in 2005. In contrast, data services' share of total telecommunications revenues will rise from 12 percent in 1999 to 21 percent in 2005, and the Internet's share of total telecommunications revenues will rise from 4 percent in 1999 to 16 percent in 2005.

**Table 27 – Forecast of Revenues in the Telecommunications Industry**

| | 1999 | | 2005E | |
|---|---|---|---|---|
| Service | $ in Billions | Percent of Total | $ in Billions | Percent of Total |
| Local Voice | 87.8 | 33.0 | 92.6 | 20.8 |
| Long Distance Voice | 84.0 | 31.6 | 71.1 | 16.0 |
| Wireless | 40.0 | 15.1 | 100.1 | 22.5 |
| Internet | 10.5 | 4.0 | 69.7 | 15.7 |
| Data Services | 31.4 | 11.8 | 90.8 | 20.5 |
| Other ILEC | 11.9 | 4.5 | 19.8 | 4.5 |
| Total | 265.5 | 100.0 | 444.1 | 100.0 |

Source: J. P. Morgan Securities, *Telecom Services Industry Analysis*, September 8, 2000.

One trend influencing the direction of the industry is the rise of the Internet Protocol for delivering voice and data to customers. While Voice over Internet Protocol is not currently a viable alternative for local telephony, the indirect effects of this revolution are profound on telecommunications providers. Industry giants such as AT&T and SWBT are reorganizing business lines and altering their emphasis towards data and Internet services. Many analysts who follow the telecommunications industry believe that voice telephony likely will become more of a commodity business, no longer sold as a separate service.

Another trend that will affect competitive delivery of voice telephony will be the alternatives to wireline discussed in Chapter 4. Growth in satellite, cable, and wireless services to customers will change the market structure of local telephone service by providing several means to deliver local telephone service. The locations where alternative providers offer these services would affect the level of competition across different areas of Texas. The number of CLECs on wireline in a rural area may not be as important as the opportunity for area customers to have several portals. In areas that currently have numerous CLECs on wireline, the competition will be even fiercer but not fully captured in the data of regulated telecommunications providers.

## Competition Outlook

The Commission has implemented the Texas Legislature's framework for deregulating local voice service in Texas. As a result, CLECs have entered the Texas market in the past two years and have provided competition in certain regions of Texas.

The market for business customers in the Large Metro areas of Texas appears to be competitive. Facilities-based competition has provided increased capacity for CLECs to compete with ILECs over the long term. Monopoly power exists, however, in residential and rural markets in Texas. Key CLECs that were expected to challenge SWBT are now limiting their push into residential voice markets in Texas.

The Commission recognizes that differences in personal income and population density among various regions of Texas also affect where CLECs decide to compete for residential customers. At the same time, however, cross-subsidies that have traditionally kept residential rates artificially low have contributed to the lack of competition for residential customers.

The Commission believes that long term re-regulation of residential and rural markets should not be necessary, as new technologies could dislodge the monopolistic position of ILECs in certain areas of Texas in coming years.

# CHAPTER 7: LEGISLATIVE RECOMMENDATIONS

## 1. TAKE FURTHER STEPS TO FACILITATE LOCAL EXCHANGE COMPETITION IN TEXAS

The *2001 Scope of Competition Report* summarizes the path taken to open century-old monopolies as well as the use of new tools for facilitating competition that the Texas Legislature provided last session. As detailed above, the response has been good in some markets and disappointing in others. The conclusion today is that competition looks viable in the business and urban markets, but may not be as viable for certain rural and residential customers. The *Report* offers an economic diagnosis for why this pattern has developed, with the primary causes rooted in underlying market conditions and in the historical regulatory pricing system for local telephone service.

Texas has had a long-standing public policy to provide universal service and to maintain low rates for basic residential local service. However, continuing this policy means that some segments of the market may not receive rates that reflect the true cost of the service. In the short term, these segments - most notably residential and rural customers - may need protection from price increases if the market does not effectively moderate them. Indeed, further action may be necessary to ensure that competition comes to these markets at all. The Commission recognizes that short-term remedies are not long-term solutions in regulating a telecommunications industry that is rapidly evolving away from selling simple voice service.

There are a number of ways Texas can go from here. Approaches can be passive or active. The Commission suggests that the Legislature consider at least the following options for addressing the lack of competition in Texas local residential and rural markets:

### Option A: Passive Erosion (no change to current pricing structures).

This is the de facto policy now in effect. If the market is left to behave freely under current policies, residential customers will continue to have low rates for basic service, but incumbent carriers likely will raise rates further on nonbasic services with little competition under the pricing flexibility granted in SB 560. The economic term for the process of aligning rates to reflect actual costs is called rebalancing. A benefit of allowing these rates to rise is that higher rates for the total set of residential services (even with basic service rates held artificially low) would provide CLECs incentives to offer competitive bundled service packages and to bring new technologies to more areas of Texas. As a result, CLECs may be able to erode the market share of incumbents over the long term.

However, a likely consequence of this approach is that CLECs will serve profitable high-end residential customers and the remaining customers, especially low-end residential and rural customers, may experience price increases for commonly used services for which there are no affordable substitutes at this time. So, while the bundled price of residential telephone services will move closer to its true cost, the burden of rebalancing prices would continue to be borne by the vertical services user, while basic local services remain subsidized below true cost. From the public's point-of-view, this arrangement may be preferable to having that burden be borne by all residential dial-tone customers.

### *Option B: Place a temporary, two-year price cap on popular nonbasic residential services that do not currently have competition, and evaluate whether further steps are necessary at the close of the cap to ensure competition in these markets.*

This option borrows from both laissez-faire and regulatory economics. Placing caps on residential call forwarding, caller ID, and call return, - the prices of which have increased substantially since SB 560 became effective - would moderate the burden borne by residential customers during the transition to competition for local exchange markets.

Most residential and rural customers receive basic local services at rates well below their true cost (with the remainder of the cost subsidized by Texas and federal universal service payments and over-priced vertical or nonbasic services). The best hope many of these customers have for competition is from alternate technologies – such as wireless, satellite, or cable – that are not yet cost-competitive with landline basic local service. Landline local exchange competitors may never be competitive with incumbent-provided basic local service at current, subsidized rates. Therefore, the primary benefit of price caps on nonbasic services would be to temporarily protect residential customers from further price increases for services that have already seen large price increases. Such a strategy would allow the opportunity to see if the bundled local service package is priced high enough to allow more competitors to serve more residential and rural customers.

A disadvantage of this approach is that competitive providers need sufficient profit to fight for and win market share from incumbent carriers. Caps on vertical services will also affect competitors' profits slowing innovation in telephony services. At the present time, the Commission has observed that incumbent carriers are often charging prices for nonbasic services that are 5 to 10 times higher than their costs and, in some cases, 100 times higher than their costs. Capping prices at these levels would not limit opportunities for competitors to enter the market profitably.

### *Option C: Authorize and direct the Commission to hold a proceeding to rebalance costs into a structure that gives competitive providers the incentive to compete in residential and rural markets.*

Most residential customers get a majority of their basic local services below cost. Rebalancing of rates would establish residential and rural rates that more closely, reflect the true costs of service. CLECs would have greater incentives to enter new markets in Texas with a wider range of sophisticated services for customers outside the large metro areas. Higher, rebalanced local rates would give local service providers much more economic headroom to deploy advanced telecommunications technologies and services for rural and residential customers.

This approach, however, has several drawbacks. After years of subsidized low rates, many customers would face increases in basic service rates as a result of rate rebalancing. Determining the proper, cost-based price for basic service in a given area would be difficult. Raising the rates for basic local services to meet costs might not permit competition anyway, as lower income and sparsely populated areas of Texas may never be profitable enough to attract competitors in traditional local service for reasons other than retail pricing.

### *Option D: Combine Options B and C*

Combine Options B and C for a comprehensive solution that includes the short-term protection of price caps and the long-term incentives of rebalancing prices to more fully reflect costs. The advantage of this approach is that any negatives associated with the moratorium on certain residential service prices under Option B can be evaluated and adjusted in the course of rate rebalancing. Furthermore, such a proceeding and its implementation are likely to take most of the two years of the Option B moratorium. The cap on prices may mollify negative public reactions that otherwise could result from higher prices, while allowing residential and rural customers to reap the benefits of a wider range of telephone services in the future.

While one of these approaches may be desirable, the Commission believes that long-term re-regulation of residential and rural markets should not be necessary. While monopoly power is still a factor in residential and rural markets at this time, new technologies appear to have the potential to stimulate vigorous competition in a number of parts of Texas in the years to come. Until then, the Legislature's price cap on traditional phone services serves as an appropriate customer protection.

## *2. Facilitate Access to Flat-Rate Local Dial-Tone Service for Texans in Uncertificated Service Areas*

Currently, numerous potential customers for local exchange telephone service do not have access to reliable, flat-rate dial-tone and other features of local exchange service because they are located in uncertificated service areas in Texas. Uncertificated service areas are areas where no telecommunications provider is obligated to provide telephone service. While all electric utility customers in Texas are served by at least one electric utility company, customers located in areas totaling approximately 10,000 square miles in Texas have no telecommunications provider obligated to provide access to dial-tone. This situation was created when the original service areas were established and no incumbent local service provider wanted to serve these rural and sparely populated areas. Following a twenty-five year period of growth, these previously uninhabited rural areas are becoming more populous.

The Commission regularly receives requests from residents in uncertificated areas to obtain dial-tone. Commission staff members have encountered instances of telecommunications providers refusing to connect potential customers to the network, even if the customer builds a line up to the provider's demarcation point. In addition to lacking access to reliable dial-tone service and emergency 9-1-1 service, these potential customers lack access to Internet service providers and advanced services. Because telecommunications providers are not currently required to serve uncertificated areas, Texas citizens are denied access to reliable, flat-rate dial-tone service, emergency 9-1-1 service, and the Internet. The only communications options that Texas citizens are afforded in uncertificated service areas are BETRS (radio), cellular, and satellite communications services. Even these options can be severely limited due to geographic dead spots in the coverage.

The Commission recommends that the Legislature consider the following two options for bringing reliable dial-tone to Texans located in uncertificated areas.

(1) Authorize the Commission to assign each uncertificated area in Texas to a telecommunications provider with the understanding that funding from the Texas Universal Service Fund (TUSF) would be available for the recovery of certain costs associated with the provision of dial-tone in uncertificated areas. The Commission notes that the optimal means for providing dial-tone to a particular area may depend upon a variety of geographic, economic, technological, and other area-specific factors. Accordingly, assignment of this service extension would be made on a technology-neutral basis. Similarly, TUSF funding for the recovery of certain costs associated with providing dial-tone to the customer also would be considered regardless of the technology used to provide this service.

(2) Give the Commission the responsibility to evaluate requests for dial-tone from persons located in uncertificated areas and to authorize the Commission to require a telecommunications provider to provide dial-tone to a prospective customer, on a case-by-case basis. Again, the optimal means for providing dial-tone to a particular customer may depend upon a variety of factors best determined within the scope of each request. Consequently, the assignment and funding of this service extension would be made on a technology-neutral basis.

The Commission remains committed to a system of telecommunications in Texas that does not exclude citizens on the basis of location. If it is the intent of the Legislature to provide all Texans with access to reliable local exchange telephone service, including dial-tone, the Commission encourages adoption of one of these two options.

### 3. Clarify and Ensure Commission Authority to Protect Proprietary Information

As deregulation is implemented, telecommunications providers and potential new entrants have more concerns about competitively sensitive information. Recent judicial decisions and legislative revisions have left governmental bodies without the independent legal grounds necessary to seek protection of commercially sensitive information received from third parties. This inability to assure providers that such information will be protected from disclosure has hampered the Commission's ability to complete legislatively mandated reporting duties, such as the regular scope of competition reports and this year's reports on advanced services and switched access.

In the utility industry in Texas, the Legislature has carefully scripted the move from monopolies in the provision of telecommunications and electric services to competitive markets. It has also given the PUC duties, such as providing a scope of competition report, that require that the PUC be given access to commercially sensitive information in order that it might provide well-educated guidance on the movement of the market to competition. In the newly competitive market, the PUC has become the hunting ground for competitors to find commercially sensitive information about their competition. Without the ability to gather and protect commercially sensitive information, the PUC becomes a thorn in the side of competition.

As noted several times in Chapters 3 and 4 of this *Scope Report*, the Commission was either unable to gather the data it needed to prepare the *Scope Report*, or unable to gather it in the most useful format. Many entities expressed concern that the Commission could not protect the information once it became an agency document due to the recent change in Tex. Gov't Code § 552.110, and the Attorney General's letter ruling in OR2000-344 (February 2, 2000).[109]

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[109] Prior to the 76th Legislative session, Section 552.110 of the Texas Government Code allowed governmental bodies to protect commercial information obtained from third parties if the information was privileged or confidential by statute or judicial decision. In deciding whether such third-party information was excepted from disclosure under § 552.110, the Attorney General applied the two-prong test set out in *National Parks Conservation Ass'n v. Morton*, 498 F.2d 765 (D.C. Circuit 1974). DM-ORD 639 (1996). *National Parks* allowed governmental bodies to protect third-party commercial or financial information if disclosure would be likely to impair the government's ability to obtain necessary information in the future, or would cause substantial harm to the competitive position of the person from whom the information was obtained.

In a later D.C. Circuit case, *Critical Mass Energy Project v. Nuclear Regulatory Commission*, 975 F.2d 871 (D.C. Circuit 1992) *cert. denied*, 507 U.S. 984 (1993), the court found that the *National Parks* two-prong test should apply only to commercial or financial information that third parties are required to file with governmental bodies. The court further found that information submitted voluntarily should only be excepted from disclosure if the information is of a kind that the provider would not customarily make available to the public, under 5 U.S.C. § 552(b)(4). *Critical Mass II*, 880.

In 1999, the Austin Court of Appeals effectively overruled the application of the *National Parks* test in DM-639 (1996) when it found that *National Parks* is not a judicial decision within the meaning of the [former] § 552.110, Gov't Code. *Birnbaum v. Alliance of Am. Insurers*, 994 S.W.2d (Tex App.--Austin 1999, pet. denied). Thus, under the current Texas Public Information Act, § 552.110, financial and commercial information would not excepted from disclosure by applying the *National Parks* test alone.

By SB 1851 in the 76th Regular Legislative Session, the Legislature revised § 552.110 to cure in part the void left by the *Birnbaum* decision. The revised § 552.110 does not address the governmental body's inability to obtain information from third parties that those parties deem commercially sensitive. The Commission has run head long into the void left by this combination of judicial decisions and legislative action.

To mitigate this problem, the commission seeks revision of § 552.110 of the Texas Government Code to provide governmental bodies with an independent ground for asserting the exception for commercially sensitive information. In particular, § 552.110 should be revised to allow a governmental body to protect third-party information from disclosure *if* disclosure is likely to impair the governmental body's ability to obtain necessary information in the future *and* if the information is not customarily released to the public by the person from whom it was obtained.

An exemption for governmental bodies to protect commercial material is justified in that it protects the rights of those who are required to provide commercially sensitive information to a governmental body and it encourages cooperation from those entities that are not required to provide the information. By revising § 552.110 as suggested, governmental bodies will have a basis to assert an exception for not disclosing information that it has received from third parties, whether voluntarily or not. The burden will first be on the governmental body to prove that it needs the information and that the third party does not customarily make the information available to the public.

The aggregated data that the Commission used as the basis for Chapter 3 was a blunt but sufficient instrument for the purposes of this current *Report*. These purposes were primarily to identify broad competitive trends in basic local services in the infancy of competition, where competitive providers focused on serving business customers in four metro areas in Texas. However, as the market in local basic service evolves in the next five years the Commission will need more refined data to better understand the dynamics of competition in Texas. Having access to a more complete set of data in future scope of competition reports will help the Commission better understand the Texas market. As a result, the Commission will be able to identify and implement better practices and provide more specific recommendations to the Legislature concerning the dynamics of competition in local service.

The Commission can identify a number of examples of where the data collection instrument would be insufficient for analysis in future Scope Reports. Staff needs the ability to change the data groupings to reflect the findings of its research. For example, regional analysis of competitive providers can yield an important insight into the extent of competition. For data confidentiality reasons in this report, the Commission allowed data to be aggregated for urban regions of a certain population size, which allowed the following cities into the same category: Austin, Dallas, El Paso, Houston, and San Antonio. Unfortunately, staff subsequently determined from other sources that competitive providers did not enter El Paso as aggressively as they did the other four cities, but staff could not regroup the data to put the four cities in a new category and assign El Paso into a more appropriate group.

Further, the Commission needs the ability to analyze individual counties and the competitive providers operating therein. For instance, when staff discovered that a number of coops in west Texas filed to become competitive providers, it consulted survey data, which showed that competitive retailers had gained a larger market share in the Texas Panhandle than in other rural areas of Texas. Staff suspected that some of these coops were winning market share in the Texas Panhandle, but, without direct access to the data, Staff could not determine which coops were winning market share. With that knowledge, staff could have, on a confidential basis, interviewed these providers to better understand how the Commission could promote competition in rural areas of Texas.

The Commission also could not calculate the common market share index known as the HHI on the basis of data collected through the Commission's data request. Large IXCs were not willing to let the ILECs report to the Commission information on originating minutes of use, which was needed to calculate an HHI for intrastate long distance. Commission staff finally obtained the information from the biggest ILECs (but not the others), but only after much persistence, involving coordination with both those ILECs and the big IXCs.

Information needed by the Commission to conduct industry analyses and to provide a full picture of the utility markets in Texas can only be obtained from utility companies, some of which are no longer regulated entities. The Commission has no authority to require certain entities, like municipal power companies, to provide data to the commission, but the Commission nonetheless needs the data in order to fulfill its statutory duties. Accordingly, § 552.110 should be revised as noted above to give the PUC and other governmental bodies an independent ground upon which to base a request for an exception to disclosure for information that has been provided a governmental body, whether voluntarily or involuntarily.

## 4. Clarify that Telecommunications Providers have Burden of Proof in Slamming and Cramming Complaints

In contested cases concerning slamming complaints, the Commission has encountered disputes as to whether and how a utility must demonstrate that it has complied with PURA and Commission rules for authorizing a change in a customer's preferred carrier.

The Commission recommends that PURA be clarified to require that a telecommunications utility initiating a switch in the customer's preferred carrier be required to demonstrate that it complied with the provisions in PURA and commission rules in order to refute any allegation of slamming (unauthorized switch) or of cramming (unauthorized charges).

Such clarification regarding slamming could be made in PURA by adding language such as the following to PURA § 55.309.

- Upon a showing that a telecommunications utility has failed to respond or provide proof of verification in accordance with the requirements in this Subchapter and commission rules, the burden of proof shall be on the telecommunications utility initiating a switch in a customer's preferred telecommunications utility to provide clear and convincing evidence that the switch was authorized in accordance with such requirements.

Adding he following language to PURA § 17.159 could achieve a similar result with respect to cramming.

- Upon a showing that a telecommunications utility has failed to respond or provide proof of verification in accordance with the requirements in this

Subchapter and commission rules, the burden of proof shall be on the telecommunications utility imposing the charges for a product or service to provide clear and convincing evidence that the charges were authorized in accordance with such requirements.

### 5. Grant 9-1-1 Commission Sufficient Authority to Accomplish its Mission

The inability of the Commission on State Emergency Communications (CSEC or the 9-1-1 Commission) to manage and control deadlines for the installation and testing of equipment between the local telephone companies and wireless carriers has delayed the availability of advanced emergency capabilities offered by enhanced 9-1-1 (E911) systems.

The 76th Texas Legislature passed H.B. 1983, which gave the CSEC the responsibility for implementing wireless Phase I 9-1-1 services for at least 75% of the population served by the State program. This implementation was to be completed on or before August 31, 2000. CSEC did not meet this deadline.

Specifically, CSEC encountered problems getting certain ILECs, CLECs, and wireless companies to place and fulfill trunk orders and to begin and complete the testing and implementation process necessary to complete Phase I service. CSEC does not have the necessary jurisdiction over the telecommunications carriers to require compliance with the Phase I requirements. CSEC must rely on the Commission and the FCC for enforcement purposes.

Although the Commission worked closely with CSEC to help with deployment of Phase I in Texas, the implementation is still not complete. Specifically, the Commission worked with regulated carriers to ensure that trunks ordered by wireless carriers were installed and tested to meet the deadline set by HB 1983. As a result, wireless Phase I 9-1-1 service was deployed in Texas covering 80.6% of the population served by the state program, as of December 14, 2000.

Under Phase I, 9-1-1 systems must deliver the phone number of the handset from which an emergency call originates and the location of the base station carrying the call to the 9-1-1 operator. Under Phase II, 9-1-1 systems must locate handsets within a radius of 125 meters with a success rate of 67 percent. The requirements for Phase II do not take effect until October 1, 2001.

In order to assist CSEC in completing its Phase I and Phase II wireless implementation projects, the Commission recommends that the Legislature grant CSEC limited jurisdiction over ILECs, CLECs, and wireless telecommunications providers. This limited jurisdiction would include enforcement powers to assess administrative penalties in order ensure full compliance in the Phase I and Phase II 9-1-1 wireless implementation projects and other 911-related projects and activities in the future.

# Other Commission Recommendations

In other legislatively mandated reports, the Commission has discussed and made the following recommendations:

## *ADVANCED SERVICES REPORT RECOMMENDATIONS*

### 1. Recommended Objectives for Public Policy

**Establish a goal that all Texans have access to advanced services by a date certain to meet policy goals set in state and federal legislation**

**Encourage deployment of advanced services to rural Texans in a technology neutral manner for cost-effectiveness**

**Avoid Excessive and Intrusive Regulation**

**Encourage Local Solutions**

**Avoid "One Size Fits All" Solutions**

### 2. Specific Policy Alternatives to Encourage Deployment

**Expand Data Collection Activities**

**Implement Demand Aggregation**

**Implement Anchor Tenancy**

**Encourage Community Networks**

**Provide Community Internet Access And Training To "At Risk" Populations**

**Use Economic Development Funds for Rural Telecommunications Infrastructure Investment**

**Provide Tax Incentives for Deployment**

**Deploy Fiber Optic Cables in the State's Rights of Way**

**Allow Private Access in Limited Situations to the TEX-AN 2000 Infrastructure**

**Provide Narrow Exception for Rural Municipal Governments to Provide Advanced Services**

**Enhance Statewide Telecommunications Strategic Planning**

## SWITCHED ACCESS REPORT RECOMMENDATIONS

**Provide the statutory ability for the Commission to restructure access charges and reduce access charge revenues for Chapter 58 and 59 ILECs**

**Authorize the Commission to hold a combined proceeding, rather than separate ones for each company, to restructure and reduce access charges for small incumbent local companies and cooperatives**

**Extend the expiration date of PURA Section 52.112 in order to ensure corresponding customer protections resulting from switched access charge reductions**